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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LAM, DUNG LE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/623,545	Applicant(s) ISHII, KENICHI	
	Examiner DUNG LAM	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 101-114 is/are pending in the application.
- 4a) Of the above claim(s) 1-99 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 100-114 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims **100-114** are rejected under 35 U.S.C. 103(a) as being unpatentable over **3GPP171 (3GPP TS23.171** Functional Stage 2 description of Location services in UMTS, version 3.8.0) in view of **Havanis** (US Pub. No.6,195,557) further in view of **Nowak** (US Pub. No.6968195).

2. Regarding claim **100**, **3GPP171** teaches a location system for locating a target mobile terminal, comprising:

- a client terminal (LCS client, section 5.5.1) for transmitting a location request specifying the target mobile terminal and location information including accuracy (request contains target UE identity and Quality of service information, section 5.5.1 and section 8.7.1.1 item 4, QoS such as accuracy);
- and a position system for producing a location of the target mobile terminal; a gateway which transmits the location request to the positioning system and stores previously obtained location information of the target mobile terminal (section 6.3.3 and section 8.7.3.3 #9; location stored in GMLC for later retrieval section),
- wherein the gateway performs a first privacy check in response to the location request from the client terminal (section 8.7.1.1, item 1), and

- if the stored location information satisfies the requested accuracy, then sends the location without transmitting the location request to the positioning system in order to decide whether the gateway can transmit the stored location information to the client terminal (section 8.7.1.2 item#9, if QoS is satisfied, location report is sent immediately which means no further location request is necessary)
- a second privacy check is also performed (privacy verification section 8.7.7.1 #6)

However, 3G171 does not teach that the privacy check is specifically performed by the GMLC. In an analogous art, **Havanis** teaches the GMLC performs a second privacy check by the GMLC to determine if further verification is needed to be sent to the target UE (C5 L49-67). *Therefore*, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine **3G171**'s teaching of location with **Havanis's** teaching of second privacy performed at the GMLC so that there's no need to send further inquiry to another component and thus the system resource usage is reduced.

However, 3GPP171 and Havanis do not teach that the request specifies an allowable age and the step of checking whether if a requested allowable age of location information satisfied the specified condition. In an analogous art, **Nowak** teaches the concept of not only specifying the accuracy as a QoS parameter of a location request but also the allowable age to tailor to the customers' specific needs and budget (C2 L41- C3 L39). Nowak further teaches that if a location that falls within the specified allowable age is available, the network skip the step of searching for a new source performing the location estimation (C3 L40-58, C15 L15-42). Because the more accurate or fresh a location estimation is, the higher the cost. *Therefore*, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine **3G171**'s location system with Nowak's specifying a QoS parameter of allowable age to enable the user the flexibility of acquiring the type of location that is tailored to the users' specific needs and affordable budget.

3. Regarding claim 101, **3G171, Havanis and Nowak** teach the location service system of claim 100, wherein said gateway system transmits a notification message to said target mobile terminal (**3G171**, section 7.4, section 8.7.1.1, **Havanis's** (C5 L49-67)).

4. Regarding claim 102, **3G171, Havanis and Nowak** teach the location service system of claim 101, wherein said gateway network stores a privacy profile of said target mobile terminal, and transmits said notification message to said target mobile terminal if said privacy profile indicates that said notification message is to be sent to said target mobile terminal (**3G171**, section 8.7.1.1 #6-8, **Havanis's** (C5 L49-67)).

5. Regarding claim 103, **3G171, Havanis and Nowak** teach the location service system of claim 100, wherein said gateway transmits a verification request message to said target mobile terminal and receives a verification report from the target mobile terminal to determine if the verification report allows said stored location information to be forwarded to said client terminal (**3G171**, section 8.7.1.1, items 2-7).

6. Regarding claim 104, **3G171, Havanis and Nowak** teach the location service system of claim 103, wherein said gateway stores a privacy profile of said target mobile terminal, and transmits said verification request message to said target mobile terminal if said privacy profile indicates that said location request is to be verified by said target mobile terminal (**3G171**, section 8.7.1.1, section 8.7.1.2)

7. Regarding **claim 105, 3G171** teaches a location method of a location service system for locating a target mobile terminal, comprising:

- transmitting, at a client terminal, a location request specifying the target mobile terminal, requested accuracy and requested allowable age (request contains

target UE identity and Quality of service information, section 5.5.1 and section 8.7.1.1 item 4, QoS such as accuracy);

- transmitting, at a gateway which stores previously obtained location information of the target mobile terminal, the location request to a positioning system which produces location information of the target mobile terminal in response to the location request from the gateway (section 6.3.3);

- performing, at the gateway, a first privacy check in response to the location request from the client terminal (section 8.7.1.1, item 1); and

performing, at another network component, to decide whether the gateway can transmit the stored location information to the client terminal skipping the step of transmitting the location request to the positioning system if the stored location information satisfies the requested accuracy (if QoS is satisfied, location report is sent immediately which means no further location request is necessary; section section 8.7.1.2 (item #9); 8.7.1.1, items 2-7; section 6.1;).

- performing a second privacy check is also performed (section 8.7.7.1 #6)

However, 3G171 does not teach that the privacy check is specifically performed at the GMLC. In an analogous art, Havanis teaches the GMLC performs a second privacy check by the GMLC to determine if further verification is needed to be sent to the target UE (C5 L49-67). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine 3G171's teaching of location with Havanis's teaching of second privacy performed at the GMLC so that there's no need to send further inquiry to another component and thus the system resource usage is reduced.

However, 3G171 does not teach that the request specifies an allowable age and the step of checking whether if a requested allowable age of location information satisfied the specified condition. In an analogous art, Nowak teaches the concept of not only specifying the accuracy as a QoS parameter of a location request but also the allowable age to tailor to the customers' specific needs and

budget (C2 L41- C3 L39). Nowak further teaches that if a location that falls within the specified allowable age is available, the network skip the step of searching for a new source performing the location estimation (C3 L40-58, C15 L15-42). Because the more accurate or fresh a location estimation is, the higher the cost. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to combine **3G171**'s location system with Nowak's specifying a QoS parameter of allowable age to enable the user the flexibility of acquiring the type of location that is tailored to the users' specific needs and affordable budget.

8. Regarding claim 106, **3G171, Havanis and Nowak** teach the method of claim 105, wherein the performing of the second privacy check comprises the step of transmitting a notification message to said target mobile terminal (**3G171** section 8.7.1.1, items 6-7).

9. Regarding claim 107, **3G171, Havanis and Nowak** teach the method of claim 106, further comprising storing a privacy profile of said target mobile terminal, and wherein the performing of the second privacy check comprises determining if the privacy profile of the target mobile terminal indicates that said notification message is to be sent to said target mobile terminal (**3G171** section 8.7.1.1, items 6-7, section 8.11.1 to 8.11.3).

10. Regarding claim 108, **3G171, Havanis and Nowak** teach the method of claim 105, wherein the performing of the second privacy check comprises:
transmitting a verification request message to said target mobile terminal;
receiving a verification report from the target mobile terminal (**3G171** section 8.7.1.1, items 6-7).; and

determining if the verification report allows said last known location information to be forwarded to said client terminal (**3G171**, section 7.4, 8.7.1.1, items 6-7).

11. Regarding claims 109 and 110, they disclose the features of the gateway, which correspond to claims 102 and 100 respectively. Therefore, they are rejected for the same reasons as their corresponding claims.

12. Regarding claims 111-114, they disclose the features of the gateway, which corresponds to claims 101-104 respectively. Therefore, they are rejected for the same reasons as their corresponding claims.

Response to Arguments

1. Applicant's arguments with respect to claim 100-114 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUNG LAM whose telephone number is (571) 272-

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6497. The examiner can normally be reached on M - F 9 - 5:30 pm, Every Other Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/VINCENT P. HARPER/

Supervisory Patent Examiner, Art Unit 2617